Rejection of Claims 1-5 and 8-10 Under 35 USC§ 112

Claims 1-5 and 8-10 were rejected under 35 USC§ 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 5-7 have been deleted and require no further consideration.

In Claim 1 Applicant has amended the claim by deleting "adapted for coupling to a boot-can connector, the boot" and adding "constant velocity universal joint". Applicant has also deleted "for being received by the boot-can connector". No new material has been added. Applicant respectfully requests that the rejection to Claim 1 be withdrawn.

Amended Claim 8 now reads "a constant velocity universal joint assembly comprising:

a constant velocity universal joint having an outer race;

a boot-can having a first end for mating with said outer race and a second flanged end; and

a thermoplastic rolling-diaphragm boot having a crimping lip received by the second flanged end of said boot-can, the crimping lip having a plurality of radially distributed apertures for increasing the compressibility of the crimping lip. No new material has been added. Applicant respectfully requests that the rejection to Claims 8-10 be withdrawn.

Rejection of Claims 1-3 Under 35 USC § 103(a)

Claims 1-3 were rejected by the Examiner under 35 USC § 103(a) over Riemscheid, U.S. Patent 4,403,781 (the '781 Patent). Applicant respectfully traverses the Examiner's obviousness rejection for the following reasons.

Claim 1 now reads "a constant velocity universal joint the boot comprising: a cylindrical neck member; and an annular member having a longitudinal axis and a crimping lip, said crimping lip having a plurality of radially distributed apertures which are oriented

parallel to said longitudinal axis for reducing the stiffness and increasing the compressibility of said crimping lip" (emphasis added). The '781 Patent discloses a sealing assembly including a resilient boot or sleeve mounted in sealing engagement between the inner and outer members of a universal joint with one end of the sleeve being connected to an axially movable bush mounted about the driveshaft of the universal joint.

Applicant argues that there is no teaching or suggestion in the '781 Patent related to use of a. crimping lip having a plurality of radially distributed apertures which are oriented parallel to said longitudinal axis for reducing the stiffness and increasing the compressibility of said crimping lip. Applicant also argues that inclusion of the radial distributed apertures in the crimping lip was not obvious to one of ordinary skill in the art as constant velocity joint boots have not historically utilized any form of "cut-out" due to grease leak issues.

Thus, Applicant believes that the '781 Patent fails to teach or suggest Applicant's claimed invention as set forth in Claim 1. For the reasons stated above with respect to Claim 1, Applicant respectfully requests that the rejection to Claim 1 under 35 USC § 103(a) be withdrawn.

Claims 2 and 3 depend from Claim 1, and necessarily includes all of the limitations of Claim14. For the reasons stated above with respect to Claim 1, Applicant respectfully requests that the rejection to Claims 2 and 3 under 35 USC § 103(a) be withdrawn.

Amended Claim 4 includes the limitation of "the annular member formed of a thermoplastic material. (emphasis added) For the reasons stated above with respect to Claim 1, Applicant respectfully requests that the rejection to Claim 4 under 35 USC § 103(a) be withdrawn.

Rejection of Claims 4-13 and 35 USC § 103(a)

Claim 4 was rejected under 35 USC § 103(a) as being unpatentable over Riemscheid in view of Umeno, U.S. Patent No. 5,99,029 (the "029" patent"). The Examiner argues that

the "029" patent teaches an annular member formed with thermoplastic material. Neither the "781" patent nor the "029" patent discloses a constant velocity joint boot having a cylindrical neck member and an annular member having a longitudinal axis and crimping lip where the crimping lip has a plurality of radially distributed apertures which are oriented parallel to said longitudinal axis for reducing the stiffness and increasing the compressibility of the crimping lip. Applicant further argues that there is no teaching or suggestion to so combine the "781" and "029" patents together. In addition, even if a combination of the "781" and "029" patents are made, they fail to reach the invention of Claim 4 which includes an annular member being formed of a thermoplastic material in conjunction with the limitations of Claim 1. For the reasons stated above, Applicant respectfully requests that the rejection to Claim 4 under 35 USC § 103(a) be withdrawn.

Claims 5-7 have been deleted and require no further review.

Claim 8 includes the limitations of a constant velocity universal joint having an outer race and a boot-can having a first end for mating with said outer race annular housing and second flange end and further including a thermoplastic rolling diaphragm boot having a crimping lip received by the second flanged end of said boot-can wherein the crimping lip has a plurality of radially distributed apertures for increasing the compressibility of the crimping lip. Neither the "781" patent nor the "029" patent disclose the boot-can or the thermoplastic rolling diaphragm boot having a crimping lip received by the second flanged end of the boot-can where the crimping lip has a plurality of radially distributed apertures for increasing the compressibility of the crimping lip. In addition, there is no teaching or suggestion to so combine the "781" and the "029" patents together. Thus, Applicant believes that the "781" and "029" patents, neither individually nor together, teach or suggest Applicant's claimed invention as claimed in Claim 8. Applicant respectfully requests that the rejection to Claim 8 under 35 USC § 103(a) be withdrawn.

Claims 9 and 10 depend from Claim 8 and necessarily include the limitations of Claim 8. For the reasons set forth above with respect to Claim 8, Applicant respectfully requests that the rejection to Claims 9 and 10 be withdrawn.

Claim 11 includes the limitations of: a propeller shaft having a first end; a constant velocity universal joint for receiving the first end of the propeller shaft and including an outer race having a first face; a boot-can having a large-diameter end and a smaller-diameter flanged end, the larger-diameter end for mating with the first face of the outer race; and a thermoplastic boot having sealing end, a tubular stem portion for receiving the propeller shaft, and an annular upturned edge crimpingly affixed to the smaller-diameter flanged end of the boot-can, the annular upturned edge having a plurality of radially distributed apertures for increasing the compressibility of the annular upturned edge, and the sealing end cooperating with the propeller shaft to provide a seal therewith." The Examiner indicates that the "781" patent lacks the teaching of the boot being made of a thermoplastic material and the upturned edge having a plurality of radially distributed apertures. Applicant reiterates the arguments with respect to Claim 1 and Claim 8 herein. Applicant respectfully requests that the rejection to Claim 11 be withdrawn.

Claims 12 and 13 depend from Claim 11 and necessarily include the limitations of Claim 11 for the reasons set forth with respect to Claim 11, Applicant respectfully requests that the rejection to Claims 12 and 13 be withdrawn.

Applicant thanks the Examiner for the diligent review of the Application. In view of the foregoing amendments and remarks, reconsideration of the Application and its early allowance of all remaining claims is respectfully solicited.

Respectfully submitted,

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VERSION SHOWING CHANGES MADE

In the Claims

1. (Amended) A constant velocity universal joint [adapted for coupling to a boot-can connector, the] boot comprising:

a cylindrical neck member; and

an annular member having a longitudinal axis and a crimping lip [for being received by the boot-can connector], said crimping lip having a plurality of radially distributed apertures which are oriented parallel to said longitudinal axis for reducing the stiffness and increasing the compressibility of said crimping lip.

2. (Amended) The constant velocity universal joint boot of Claim 1, wherein the plurality of radially distributed apertures are a plurality of equally circumferentially spaced apart holes.

3. (Amended) The constant velocity universal joint boot of Claim 1, wherein the plurality of radially distributed apertures are a plurality of equally circumferentially spaced apart radially distributed cut-outs.

4. (Amended) The constant velocity universal joint boot of Claim 1, wherein the annular member is formed of a thermoplastic material.

Please delete Claims 5-7.

8. (Amended) A constant velocity universal joint assembly [including an annular housing the constant velocity universal joint] comprising:

a constant velocity universal joint having an outer race;

a boot-can having a first end for mating with said outer race annular housing and a second flanged end; and

a thermoplastic rolling-diaphragm boot having a crimping lip [for being] received by the second flanged end of [the] said boot-can, the crimping lip having a

plurality of radially distributed apertures for increasing the compressibility of the [annular] crimping lip.

In the Specification

At page 8, line after "20" delete "disposed around grease cap 32".

At page 11, line 24 after "cut-outs" delete "58" and add --60--.

At page 11, line 25 after "apertures" delete "60" and add --62--.